

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Atty Dkt. 839-1149

C# M#

GLEESON et al.

TC/A.U.

2855

Serial No. 09/989,102

Examiner: Oen

Filed: November 21, 2001

Date: October 18, 2004

Title: COMBUSTION CHAMBER DYNAMIC PRESSURE TRANSDUCER TEE PROBE
HOLDER AND RELATED METHOD

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450



Sir:

RESPONSE/AMENDMENT/LETTER

This is a response/amendment/letter in the above-identified application and includes an attachment which is hereby incorporated by reference and the signature below serves as the signature to the attachment in the absence of any other signature thereon.

☐ **Correspondence Address Indication Form Attached.**

Fees are attached as calculated below:

Total effective claims after amendment	23	minus highest number		
previously paid for	23	(at least 20) =	0	x \$ 18.00
				\$ 0.00

Independent claims after amendment	3	minus highest number		
previously paid for	3	(at least 3) =	0	x \$ 88.00
				\$ 0.00

If proper multiple dependent claims now added for first time, add \$300.00 (ignore improper)	\$ 0.00
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Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s) (\$110.00/1 month; \$430.00/2 months; \$980.00/3 months)	\$ 0.00
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Terminal disclaimer enclosed, add \$ 110.00	\$ 0.00
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<input type="checkbox"/> First/second submission after Final Rejection pursuant to 37 CFR 1.129(a) (\$790.00)	\$ 0.00
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☐ Please enter the previously unentered , filed

☐ Submission attached

Subtotal \$ 0.00

If "small entity," then enter half (1/2) of subtotal and subtract	-\$ 0.00
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☐ Applicant claims "small entity" status. ☐ Statement filed herewith

Rule 56 Information Disclosure Statement Filing Fee (\$180.00)	\$ 0.00
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Assignment Recording Fee (\$40.00)	\$ 0.00
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Other:	0.00
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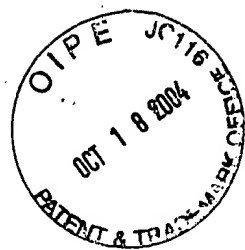
TOTAL FEE ENCLOSED \$ 0.00

The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Account No. 14-1140. A duplicate copy of this sheet is attached.

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NIXON & VANDERHYE P.C.
By Atty: Michael J. Keenan, Reg. No. 32,106

Signature:



2855
Bfw

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

GLEESON et al.

Atty. Ref.: 839-1149; Confirmation No. 9286

Appl. No. 09/989,102

TC/A.U. 2855

Filed: November 21, 2001

Examiner: Oen

For: COMBUSTION CHAMBER DYNAMIC PRESSURE TRANSDUCER TEE
PROBE HOLDER AND RELATED METHOD

* * * * *

October 18, 2004

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

REQUEST FOR RECONSIDERATION

Responsive to the Official Action dated September 21, 2004, applicants request reconsideration of the outstanding grounds of rejection for the reasons that follow.

The Examiner has rejected claims 1-23 under 35 U.S.C. 103 as unpatentable over Kato et al. (U.S. 3,943,759) in view of Copp, Jr. (U.S. 5,190,219).

According to the Examiner, Kato teaches all of the essential features of the claimed invention including a dynamic pressure probe for a combustor having a holder body with a pressure sensing passage, but acknowledges that the reference lacks a disclosure of the particular configuration claimed. The Examiner relies upon the secondary reference to Copp for teaching an apparatus having a pressure sensor and a

pressure chamber located in the housing portion arranged substantially perpendicularly to the pressure sensing passage. The Examiner considers that further features in various of the dependent claims as well as the method defined in claims 21-23 would have been obvious in view of the same combination of references, even though not disclosed in either reference.

The primary reference to Kato discloses an apparatus for detecting and indicating the pressure under which the air fuel mixture is compressed in an internal combustion engine for automobiles. In Kato, pressure is measured by detecting and analyzing secondary voltage and current signals from the ignition system of the automobile. The Examiner's assertion that Kato teaches all of the essential features of the claimed invention is respectfully traversed. For example, Kato's probe 32 does not include a pressure sensing passage, nor a pressure sensor and pressure chamber in a housing arranged substantially perpendicular to the pressure sensing passage. Kato also fails to disclose or suggest that the pressure chamber communicate with the pressure sensing passage via a relatively small aperture in a wall separating the pressure chamber from the pressure sensing passage.

The secondary reference to Copp discloses an automatic paint spray gun that incorporates a conventional air pressure gauge 128 threaded into the gun body side wall 18 so that the pressure gauge inlet 130 communicates with the air atomizing chamber 46 and the gun. The Examiner's comments to the contrary notwithstanding, Copp does not disclose any pressure sensing passage that communicates with a pressure chamber via a

relatively small aperture in a wall separating the pressure chamber from the pressure sensing passage. In fact, in Copp, there is no wall separating the inlet to the pressure gauge 128 from the atomizing chamber 46. Rather, they are in free, open communication.

Accordingly, no combination of Copp and Kato result in the invention as defined by claim 1.

In addition, the combination of references fails to disclose or suggest the limitations in any of dependent claims 2-9. The Examiner's mere unsupported conclusion of obviousness with respect to these claims is improper.

With respect to independent claim 10, the references as combined by the Examiner fail to disclose various limitations contained in the claim, including a pressure sensing portion located within a sleeve seated within a pressure sensor housing portion, with the sleeve engaged with the wall of the housing portion, and the pressure sensor including a diaphragm having one face exposed to a pressure chamber within the sleeve between the pressure sensor and the wall. The references also fail to disclose or suggest an aperture in the wall of the housing connecting the pressure chamber to the first passage.

This combination of references also fails to disclose or suggest the limitations in any of dependent claims 11-19.

With regard to method claim 21, the applied combination of references fails to disclose or suggest any of the method steps a), b) or c) defined in claim 21 nor the additional limitations contained in dependent claims 22 and 23. Should the Examiner

decide to maintain this ground of rejection, a detailed application of the reference teachings to the claims is requested.

Not only do the references taken together fail to produce the claimed invention, it is also noted that the combination of references itself is improper. The automatic paint spray gun of Copp, incorporating a conventional pressure gauge 128, suggests no modification of the electronic probe 32 in Kato. Kato's probe relies on connection between the input terminal 36 of the probe and the secondary terminal 41 of the ignition coil. Thus, the orientation of the pressure gauge 128 in Copp is irrelevant to any orientation of the probe 32 in Kato.

Accordingly, the combination of references as cited and applied by the Examiner is wholly insufficient to establish prima facie obviousness with respect to any of claims 1-23.

The Examiner has also rejected claims 1-23 under the judicially created doctrine of obviousness type double patenting, as being unpatentable over claims 1-18 of commonly owned U.S. Patent No. 6,708,568. According to the Examiner, the claims are not patentably distinct from each other.

Independent claim 1 of the '568 patent requires that the pressure sensing portion of the probe be located within a sleeve seated within a pressure sensor housing portion, the sleeve engaged with the wall of the housing portion. The claim also requires the pressure sensor to include a diaphragm having one face exposed to a pressure chamber within the sleeve between the pressure sensor and the wall. The claim also requires the first passage

to continue axially beyond the aperture in a flow direction to an acoustic damping coil wound about a vertical axis. This combination of elements is not found in any claim of the instant application.

Independent claim 14 of the '568 patent is similar in some respects to independent claim 10 of this application, with the significant exception that claim 14 of the '568 patent also requires heating means provided for raising the temperatures inside the damping coil sufficiently to prevent condensation from forming inside the coil. No such limitation appears in any of the claims of the instant application and therefore, claims 14-18 of the '568 patent are patentably distinct from the claims of the instant application.


Independent method claim 19 of the '568 patent requires that the pressure signal be transmitted beyond the sensor diaphragm to a signal damping mechanism including at least one helical coil wound about a vertical axis. There is no claim in the instant application that contains the limitation regarding a helical coil wound about a vertical axis. Accordingly, claim 19 of the '568 patent and claims dependent thereon, are patentably distinct from the claims of this application.

It is also noted that the term of any patent issuing from this application will expire twenty years from the November 21, 2001 filing date which is earlier than the filing date of the application that matured into the '568 patent. In any event, the '568 patent is limited to the term of any patent issuing from this application by reason of the priority claim in the '568 patent to this application.

It is respectfully submitted that claims 1-23 are now in condition for allowance, and early passage to issue is respectfully requested. In the event, however, any small matters remain outstanding, the Examiner is encouraged to telephone the undersigned so that the prosecution of this application can be expeditiously concluded.

Respectfully submitted,

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